11:30

750-5 Apolipoprotein E Alleles, Dyslipidemia, and Coronary Heart Disease: The Framingham Offspring Study

Peter W.F. Wilson, Richard H. Myers, Martin G. Larson, Jose M. Ordovas, Philip A. Wolf, Ernst J. Schaefer. *Framingham Heart Study, Framingham, MA, 01701*

The association between Apolipoprotein E (apo E) alleles (ε2, ε3 and ε4), dyslipidemias, and coronary heart disease (CHD) prevalence was studied in a community-based sample of middle-aged men (n = 1034) and women (n = 916) aged 40–77 years, participating in a long term study of cardiovascular disease. Compared with the ε3 allele, the ε4 allele was associated with elevated LDL-C (≥4.14 mmol/L [160 mg/dL]) in women, the ε2 and ε4 alleles were associated with moderately elevated triglycerides (≥2.82 mmol/L [250 mg/dL]) in men, and the ε2 allele was associated with severely elevated triglycerides (>5.64 mmol/L [500 mg/dL]) in men. The apo E alleles were not associated with hypertension, obesity, smoking, or diabetes, but the ε4 allele frequency was reduced in women after age 60 years. The age-adjusted prevalence of CHD was associated with the ε4 allele in men (relative odds = 1.53, P = 0.037) and women (relative odds = 1.99, P = 0.049). In analyses for women and for both sexes combined this relation persisted after adjustment by hypertension, smoking, obesity, diabetes, HDL-C, and LDL-C. *Conclusion:* Apo E alleles are important genetic markers for dyslipidemia and CHD. The estimated CHD odds associated with the ε4 allele appears to be greater than that for any other known genetic lipid abnormality, and the ε4 allele association with CHD remains significant in women and both sexes combined after adjustment by traditional coronary risk factors and lipids.

11:45

750-6 B-mode Ultrasound Assessment of the Treatment Effect of Pravastatin on the Progression of Carotid and Femoral Intima-Media Thickness in a Population Selected on Coronary Disease

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The REgression GRowth Evaluation Statin Study (REGRESS) is a two year double blinded placebo controlled prospective atherosclerosis regression study, primarily investigating pravastatin treatment by means of quantitative coronary analysis in a 885 male population with coronary disease.

In the REGRESS ultrasound substudy, 255 patients received five B-mode scans, which were used to do intima-media thickness (IMT) measurements of three carotid and two femoral arterial wall segments. One of the aims was to detect a difference in the change of the combined far wall IMT's between the pravastatin and the placebo group (respective baseline values: age 56.8 (8.1) and 55.2 (7.7); LDL-chol. 4.36 (0.80) and 4.33 (0.79) mmol/l; mean far wall IMT 0.88 (0.34) and 0.91 (0.33)mm, p = 0.41). Pravastatin treatment caused a stable decrease in LDL-chol. of 1.4(0.8) mmol/l (p < 0.001) after two months. Multivariate repeated measurements variance analysis showed a statistically significant effect of pravastatin (p < 0.001) on the mean combined far wall IMT. The largest effect was observed in the common femoral artery: 0.09 mm. (SE0.05) decrease in the pravastatin, and 0.13 mm (SE 0.05) increase in IMT in the placebo group.

Conclusion: Pravastatin induced a decrease in far wall IMT.

951 Intra Coronary Stents: Early and Late Outcome

Tuesday, March 21, 1995, Noon–2:00 p.m.
Ernest N. Morial Convention Center, Hall E
Presentation Hour: 1:00 p.m.–2:00 p.m.

951-68 A Comparison of Intracoronary Stenting with Conventional Balloon Angioplasty for the Treatment of New Onset Stenoses of the Right Coronary Artery

Eric Eeckhout, Jean-C. Stauffer, Pierre Vogt, Nadia Debbas, Lukas Kappenberger, Jean-J. Goy. *University Hospital, Lausanne, Switzerland*

Between July 1992 and March 1994, 84 patients, with documented ischemia related to new onset right coronary artery stenoses, were randomly assigned to either endoluminal stenting (S) (42 S) with the Wiktor device or conventional balloon angioplasty (A) (42 A). Both groups were comparable for baseline clinical, angiographical and procedural variables. Clinical endpoints at hospital discharge (N = 84) were: death (S: 0, A: 0), myocardial infarction (S: 0, A: 0), stroke (S: 1, A: 0), emergency CABG (S: 1, A: 0), cross-over or failure of either treatment (S: 1, A: 3), composite endpoint (S: 3 (7%), A: 3 (7%), P = ns). Clinical endpoints at 6 months follow-up (N = 84) were: death (S: 0, A: 0), myocardial infarction (S: 0, A: 0), stroke (S: 0, A: 0), elective CABG (S: 2, A: 1), re-PTCA (S:5, A: 7). At follow-up, a clinical endpoint was reached by 24% of patients in the S (10/42) versus 29% (12/42) in the A-group (P = ns). Angiographic endpoints were: early closure (S: 1, A: 3) and restenosis (≥50% reduction of the reference diameter at repeat angiography) (S: 19/40, (48%) and A: 14/40, (35%), P = ns). The minimal luminal diameter increased from 0.97 ± 0.27 mm (S) versus 1.08 ± 0.38 mm (A) (baseline, P = ns) to 2.81 ± 0.48 mm (S) versus 2.42 ± 0.59 mm (A) (post procedure, P = 0.002) and to 1.80 ± 0.99 mm (S) versus 1.73 ± 0.79 mm (A) (follow-up, P = ns).

In conclusion, both Wiktor S and A are safe and immediately effective therapeutic options in symptomatic patients with obstructive right coronary artery disease. Despite a larger postprocedural MLD with S, no difference in angiographic result is observed at 6 months. As a consequence, the clinical outcome is comparable at 6 months follow-up.

951-69 Serial Angioscopic Assessment of Coronary Stent Lining with Antiplatelet or Anticoagulant Therapy

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The most effective pharmacologic regimen to inhibit subacute coronary stent thrombosis has yet to be defined with certainty. To assess the effects of different antithrombotic therapies on thrombus deposition and early tissue reaction in stented coronary arteries we performed serial angioscopy in 20 consecutive pts who received Palmaz-Schatz coronary stent. Pts were randomized in a 3:1 ratio to receive either ticlopidine (250 mg b.i.d.) and aspirin (325 mg day) (Group 1, 15 pts) or continuous i.v. heparin (titrated to APTT of 60–100 seconds) combined with aspirin (325 mg day) and dipyridamole (75 mg t.i.d.) (Group 2, 5 pts), until the day 7th. Long term treatment was only with ticlopidine and aspirin. Coronary angioscopy was performed pre stenting, immediately post implant (Imm), on day 7th (Wk) and 2 months later (Mth). All indications for stenting were included; 7 pts (35%) had multiple stents placed. High pressure low compliant balloons were chosen for complete stent expansion. Angioscopic images were categorised unaware of therapeutic treatment.

		Appearance			Covering pattern				Thrombus
		shiny	dim	full covered	absent	smooth	rough	patchy red	
Group 1	Imm	15	–	–	15	–	–	–	–
n = 15	1Wk	6	9	–	4	3	3	5	1
	2 Mth	2	3	10	–	12	2	1	–
Group 2	Imm	5	–	–	5	–	–	–	–
n = 5	1Wk	3	2	–	3	1	1	–	–
	2 Mth	–	1	4	–	5	–	–	–

No pts suffered subacute stent thrombosis. *Conclusions:* The angioscopic features of covering reactions in stented coronary arteries are time dependent and not completely similar in the two tested antithrombotic regimens. 1) Coverage was absent or very thin and focally distributed on day 7th. 2) Completion of the neointimal lining was obtained in 2 months in the majority of patients. 3) Early intense patchy red reaction was only seen in the antiplatelet treated group. 4) Thrombus deposition was rare, without evidence of occlusive thrombus. Ticlopidine + aspirin may promote an early angioscopic tissue reaction similar but not equal to that induced by standard anticoagulation.

951-70 Absence of Bleeding and Subacute Occlusion After Palmaz-Schatz Coronary Stenting Using a New Antithrombotic Regimen

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Subacute thrombotic occlusion and bleeding complications related to antithrombotic therapy are the major limitations of elective coronary stenting. The effectiveness of a new antithrombotic regimen without full early anticoagulation to prevent these complications has been evaluated in 52 consecutive pts (62 ± 11 years, 82% male) who underwent elective Palmaz-Schatz stenting in 58 lesions. Four lesions were restenotic and 3 lesions were located in venous graft. The mean reference diameter was 3.3 ± 0.6 mm, with a mean diameter stenosis of 71 ± 9%.

Intravenous heparin was given only during the procedure. After stenting, the pts were treated with aspirin, dipyridamole, dextran, warfarin and subcutaneous low molecular weight heparin (LMWH) [enoxaparine, 40 mg/day]. LMWH was started 6 h after stenting and stopped when an INR of 2–3 was achieved. The aPTT and the INR were determined daily before discharge. In